222 Several vegetable foods were identified
262 from growing specimens by J.A. The word ṭo´mul is used to cover all green plant foods, but is also specifically applied to all clovers, to yellow mustard, and, as bitter greens (ki´yɨt ṭomul) to brown mustard. Clover (ho´lom) was eaten raw while young and tender. Mustard greens were cooked, and today bacon is added. Fiddle-neck (ka´lu) and filaree (po´halo) are eaten with salt grass while in the tender stage. A plant, known by its Tachi name ya´hal, but unidentified, was valued for its seeds which were mashed and eaten. A plant with reddish-purple flowers, ka´syɨn, has tiny edible seeds which are greatly prized; they are rolled into a ball and eaten as we would candy (undoubtedly red maid, Calandrinia). Grass nuts (tsa´lu, Brodiaea) were valued for their small nutty roots which were roasted and eaten whole or mashed into flour. A yellow prairie flower (oto´hon) was used in some way as a food. There were many others which must have been well
278 known and used. Horehound (ohoi´yon toi´yu,
757 translated as cough medicine) was cooked and
[177] the liquid drunk for a cough. J.A. said the
752 plant was an introduction of the white people. A Mexican introduction is "five spot" or spotted mallow (malpas, Spanish), the leaves of which are cooked, mixed with castor oil, and used as a poultice for pleurisy or kidney pains. The mashed roots of jimsonweed (Datura) were used as a poultice on broken bones, or on any excessively painful injury, by the Tachi, although M.G. claimed that they did not use it ceremonially. The Chunut used it ceremonially and as a medicament. J.A. reports that the mashed leaves were put on sores. An elderly man who did this became delirious for a day or two, but recovered. For fractures a poultice of mashed jimsonweed roots was tied on after the skin about the fracture had been scarified. Such a poultice was applied to Motsa's shoulder when his clavicle was broken. Another man at Pisras drank a decoction of jimsonweed when he was badly injured by being thrown from a horse. Any person, not necessarily a "jimsonweed handler," used the plant medicinally.

137 A few other plants were identified by J.A. Blue lupine, not used for anything, was called snake's-urine (ya´hɨn ṭuyu´hun). Bird's-eye (a ǧilia) was called owl's-eye (tukla´lai´ɨn tsa´tsa), and owl's-clover was known as coyote's-penis (po´tolo kai´´iyɨn). Two kinds of "wire grass" which grew in water, one coarse, the other fine, were called ka´pi and o´´wun (the words for knife and balsa).

757 The Telamni, T.W., reported that toyo´ho,
278 a plant with flat green leaves which gave milk when mashed and which "had no flowers," was boiled and the liquid applied to snake bites; it reduced the swelling. The plant grew in Cutler's field in Drum Valley.

372 Firewood was difficult to obtain. Dried
313 weeds and tules, eked out with willow, were the

usual materials. Dead willow wood provided only "a slow and punky" fire.

Mortars

The stone mortar and pestle (koi´wus and po´lwai) were obtained through trade with people of the foothills. Mayfield comments that mortars taken by the Choinimni to Tulare Lake were not brought back. Because he saw one dug up at a previous camping site, he believed they all were buried, but more probably many disappeared in trade to the Tachi.[42] The oak mortar (pe´wus), gotten from neighbors in the roblar, was used with a wooden pestle (ma´ta) (M.G.).

Kroeber states:

> The most common form of these among the Tachi was one of white oak. The flat-bottomed wooden block was a little more than a foot high, half as much again in diameter. Except for a narrow rim, the whole upper surface was excavated a few inches, chiefly by fire; but the actual pounding was done in a smaller doubly sunk pit in the center. The pestle was the same as on bedrock. Even the hill Chukchansi knew the wooden mortar, which they called Kowish; and the Choinimni used it.[43]

J.A. insisted that the metate or flat grinding stone (hise´ts) and mano or grinder (lo´wat) were used before Mexican intrusion. Particularly they were used for unshelled seeds, which were rubbed on it, then transferred to the mortar for pulverizing. "All ordinary people had them." Kroeber illustrates a flattish grinding stone from the "Kings River Yokuts" but seemingly there is no textual reference to it.[44]

Bedrock mortars were, of course, unavailable in the valley plains and lake region.

Powers states:

> Around the lake and on Kings River one will often find a family using a well-made stone mortar. They always admit that they did not manufacture these implements, but happened on them in digging or found them on the surface, and that they belonged to a race other than their own. They sometimes have the ingenuity to improve on them by fastening a basket hopper around the top to prevent the acorns from flying out. On the west side of Tulare Lake these mortars are very numerous, and of course they must have been carried thither from the mountains.[45]

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[42] Latta, Uncle Jeff's Story, 31, 37.

[43] Handbook, 527-528, pl. 45.

[44] Ibid., pl. 66.

[45] P.377. "Thither from the mountains" is probably thither from the Coast Range, not the Sierra Nevada.

272 The mass of crushed fruit was placed in a sieve
262 basket over a large watertight coiled basket and water was slowly poured through. When sufficient liquor resulted, it was poured out of the under receptacle and again put through the berries; this might be repeated two or three times.[190] If kawa seeds were to be added, this was done after the liquor had been drained for the last time. The drink was greatly enjoyed, particularly as it was available during the hottest summer weather. Usually it soured in twelve hours; in colder weather it might keep up to forty-eight but, as M.P. said, this seldom happened, "people drank it up too fast." It was always made up fresh as the soured liquor was not considered fit to drink.

Firewood

313 Trees and limbs for firewood, as well as for house poles and ramadas, were felled and severed by firing. A hole was dug around the base of the selected tree and filled with dry grass and chips. Oak sticks were kindled as torches and applied to the base of the chosen tree while the fire surrounding it was burning. Several of these torches were used, and as the tree began to burn they were pushed and wedged into the burning trunk. The flames were beaten back from the upper trunk. Usually two men worked together, a man and his son often undertaking the job, one to rekindle the sticks as they went out, as they often did, the other to adjust those at the tree trunk and to knock away charred parts of the tree. The workers took care not to look up the tree; if they did, the fire would creep up the trunk. When the tree finally collapsed, the main branches were severed by the same means, as were other parts that could not be broken into portable lengths.

Felling or severing limbs by fire was best done on dead or already fallen trees, but since these were not always obtainable, live trees were attacked in winter when they were drier and there was less danger of brush and grass fire. Old trees were easier to fire than young ones. Both men and women packed wood, but only men did the firing.

313 The load of wood was held on the back by
482 means of a tumpline. This passed over the upper forehead -- if a woman was the carrier, across the chest, if a man -- and extended down the back under the wood and out and back over the load, each end returning over each shoulder to be grasped in the hand (fig. 13, vignettes). Long poles were dragged home with ropes of willow fibre (ho') by men. Ordinarily each family provided its own firewood; a felled tree belonged to the men doing the work. At the time of a big gathering the messengers got wood in the same way.

[171]

[190] The Miwok used a similar method but evidently added no flavoring seeds (Barrett and Gifford, 161-162).

226 over the water such as Mayfield described for the Choinimni (see above).[99]

Firewood, Firemaking

313 Pine, oak, manzanita, chaparral, live oak, "any kind" of wood, was used for making fire, said N.W. To fell a tree, it was burned around its base. Baskets of water were kept at hand to control and eventually to quench the flames. No stone ax was used. Both sexes carried wood, which was bundled up with string and then
313 ported by tumpline. A piece of flat bark was
482 laid on the back and held in place by the load, to protect against bruising. A person could carry about five logs, four feet and eight inches in diameter, or more if the logs were smaller, N.W. thought.

313 Dead trees were felled by putting live coals at the base. When a tree burned through and fell, the fire was extinguished with earth. Logs were severed by burning through, leaving lengths suitable for transport. House, assembly, and sweat house fires were banked, so coals were readily available for relighting, said J.R.

372 Buckeye wood, for fire-drill hearths, was collected and stored. The fire drill [wood?] was worked in a hole at the edge of the hearth; the drill was rotated until smoke issued. [Continuing, or another method;] A piece of oak gall was set on the hearth and the drill rotated in it until it ignited. This was picked up and sparks from it were blown on dried grass or leaves. The process took two to five minutes. J.R. saw his father make fire this way; he himself never did it.

There is a growth on an oak tree "something soft and thick, maybe like rubber," which is essential in preparing fire, said N.W. This is laid on top of a buckeye board hearth, which in turn is laid over some plant material (mesini, wormwood) which has been dried and rubbed into powder. A buckeye (sic) drill is twirled between the hands on the hearth; both the oak growth and mesini catch fire. "It takes both to make the fire, neither one will ignite by itself." It took about thirty minutes to start a fire; it ignites suddenly "just like gas going off." Then the burning material was moved onto a rotten log, or whatever firewood was to be started. People who had no fire got it from this, took it to their own home. Ordinarily fire was got from neighbors, and it was only on rare occasions, when all fires had gone out, that firemaking operations were necessary.

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[99] Powers, 376.